

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 26 of 26 returned.**☐ 1. Document ID: US 6497895 B2

L3: Entry 1 of 26

File: USPT

Dec 24, 2002

US-PAT-NO: 6497895

DOCUMENT-IDENTIFIER: US 6497895 B2

TITLE: Hyperbranched polymeric micelles for encapsulation and delivery of hydrophobic molecules

DATE-ISSUED: December 24, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Uhrich; Kathryn E.	Hoboken	NJ		

US-CL-CURRENT: [424/422](#); [424/450](#), [424/451](#), [424/78.08](#), [514/937](#), [514/969](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC
Drawn Desc	Image										

☐ 2. Document ID: US 6469065 B1

L3: Entry 2 of 26

File: USPT

Oct 22, 2002

US-PAT-NO: 6469065

DOCUMENT-IDENTIFIER: US 6469065 B1

TITLE: Nitrosated and nitrosylated .alpha.-adrenergic receptor antagonist, compositions and methods of use

DATE-ISSUED: October 22, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Garvey; David S.	Dover	MA		
Schroeder; Joseph D.	Dedham	MA		
de Tejada; Inigo Saenez	Madrid			ES
Gaston; Ricky D.	Malden	MA		
Shelekhin; Tatiana E.	Action	MA		
Wang; Tiansheng	Concord	MA		

US-CL-CURRENT: [514/546](#); [514/506](#), [514/617](#), [514/651](#), [536/103](#), [540/1](#), [548/500](#), [564/45](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC
Drawn Desc	Image										

☐ 3. Document ID: US 6465440 B2

L3: Entry 3 of 26

File: USPT

Oct 15, 2002

US-PAT-NO: 6465440

DOCUMENT-IDENTIFIER: US 6465440 B2

TITLE: Antimutagenic compositions for treatment and prevention of photodamage to skin

DATE-ISSUED: October 15, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
von Borstel; Reid W.	Potomac	MD		
Romantsev; Fedor	Gaithersburg	MD		

US-CL-CURRENT: 514/45; 514/46, 514/47, 514/48, 514/49, 514/50, 514/51, 514/944,  
514/969

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC
Draw Desc	Image										

☐ 4. Document ID: US 6462044 B2

L3: Entry 4 of 26

File: USPT

Oct 8, 2002

US-PAT-NO: 6462044

DOCUMENT-IDENTIFIER: US 6462044 B2

TITLE: Nitrosated and nitrosylated phosphodiesterase inhibitors, compositions and methods of use

DATE-ISSUED: October 8, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Garvey; David S.	Dover	MA		
Saenz de Tejada; Inigo	Madrid			ES
Earl; Richard A.	Westford	MA		
Khanapure; Subhash P.	Clinton	MA		

US-CL-CURRENT: 514/246; 514/250, 514/252.16, 514/258.1, 514/263.3, 514/266.4,  
514/267, 514/292, 514/307, 514/404, 514/619, 514/655, 514/676, 514/716, 514/728,  
544/237, 544/251, 544/254, 544/265, 544/280, 544/293, 544/343, 546/111, 546/149,  
548/367.7, 564/163, 564/384, 568/306, 568/584, 568/588, 568/716, 568/744

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 5. Document ID: US 6436997 B1

L3: Entry 5 of 26

File: USPT

Aug 20, 2002

US-PAT-NO: 6436997

DOCUMENT-IDENTIFIER: US 6436997 B1

TITLE: Endogenous nitric oxide synthesis under conditions of low oxygen tension

DATE-ISSUED: August 20, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
de Tejada; Inigo Saenz	Madrid			ES

US-CL-CURRENT: 514/565

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KM/C
Draw Desc	Image									

☐ 6. Document ID: US 6423688 B1

L3: Entry 6 of 26

File: USPT

Jul 23, 2002

US-PAT-NO: 6423688

DOCUMENT-IDENTIFIER: US 6423688 B1

TITLE: Dipeptide and related compounds which inhibit leukocyte adhesion mediated by VLA-4

DATE-ISSUED: July 23, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Thorsett; Eugene D.	Moss Beach	CA		
Semko; Christopher M.	Fremont	CA		
Pleiss; Michael A.	Sunnyvale	CA		
Lombardo; Louis John	Belle Mead	NJ		
Grant; Francine S.	San Francisco	CA		
Dressen; Darren B.	San Mateo	CA		
Dappen; Michael S.	Redwood City	CA		

US-CL-CURRENT: 514/19; 514/18, 530/331, 548/535

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KM/C
Draw Desc	Image									

☐ 7. Document ID: US 6417207 B1

L3: Entry 7 of 26

File: USPT

Jul 9, 2002

US-PAT-NO: 6417207

DOCUMENT-IDENTIFIER: US 6417207 B1

TITLE: Nitrosated and nitrosylated potassium channel activators, compositions and methods of use

DATE-ISSUED: July 9, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Garvey; David S.	Dover	MA		
de Tejada; Inigo Saenz	Madrid			ES

US-CL-CURRENT: [514/355](#); [514/354](#), [514/357](#), [546/314](#), [546/315](#), [546/316](#), [546/329](#), [546/330](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 8. Document ID: US 6417170 B2

L3: Entry 8 of 26

File: USPT

Jul 9, 2002

US-PAT-NO: 6417170

DOCUMENT-IDENTIFIER: US 6417170 B2

TITLE: Antimutagenic compositions for treatment and prevention of photodamage to skin

DATE-ISSUED: July 9, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
von Borstel; Reid W.	Potomac	MD		
Romantsev; Fedor	Gaithersburg	MD		

US-CL-CURRENT: [514/45](#); [514/46](#), [514/47](#), [514/48](#), [514/49](#), [514/50](#), [514/51](#), [514/944](#), [514/969](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 9. Document ID: US 6403565 B1

L3: Entry 9 of 26

File: USPT

Jun 11, 2002

US-PAT-NO: 6403565

DOCUMENT-IDENTIFIER: US 6403565 B1

TITLE: Antimutagenic compositions for treatment and prevention of photodamage to skin

DATE-ISSUED: June 11, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
von Borstel; Reid W.	Potomac	MD		
Romantsev; Fedor	Gaithersburg	MD		

US-CL-CURRENT: [514/45](#); [514/46](#), [514/47](#), [514/48](#), [514/49](#), [514/50](#), [514/51](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KVMC

☐ 10. Document ID: US 6333356 B1

L3: Entry 10 of 26

File: USPT

Dec 25, 2001

US-PAT-NO: 6333356

DOCUMENT-IDENTIFIER: US 6333356 B1

TITLE: Compounds for treating skin conditions

DATE-ISSUED: December 25, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri	Mahwah	NJ		
Scancarella; Neil	Wyckoff	NJ		
Kalafsky; Robert	Ogdensburg	NJ		

US-CL-CURRENT: 514/631; 514/637

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KVMC

☐ 11. Document ID: US 6331543 B1

L3: Entry 11 of 26

File: USPT

Dec 18, 2001

US-PAT-NO: 6331543

DOCUMENT-IDENTIFIER: US 6331543 B1

TITLE: Nitrosated and nitrosylated phosphodiesterase inhibitors, compositions and methods of use

DATE-ISSUED: December 18, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Garvey; David S.	Dover	MA		
de Tejada; Inigo Saenz	Madrid			ES
Earl; Richard A.	Westford	MA		
Khanapure; Subhash P.	Clinton	MA		

US-CL-CURRENT: 514/250; 514/246, 514/252.16, 514/262.1, 514/267, 514/292, 514/307,  
514/404, 514/619, 514/655, 514/676, 514/716, 514/728, 544/237, 544/251, 544/293,  
544/343, 546/111, 546/149, 548/367.7, 564/163, 564/384, 568/306, 568/584, 568/588,  
568/716, 568/744

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KVMC

☐ 12. Document ID: US 6328988 B1

L3: Entry 12 of 26

File: USPT

Dec 11, 2001

US-PAT-NO: 6328988

DOCUMENT-IDENTIFIER: US 6328988 B1

TITLE: Hyperbranched polymeric micelles for encapsulation and delivery of hydrophobic molecules

DATE-ISSUED: December 11, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Uhrich; Kathryn E.	Hoboken	NJ		

US-CL-CURRENT: 424/422; 424/450, 424/451, 424/78.08, 514/937, 514/969

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KM/C
Draw Desc	Image									

☐ 13. Document ID: US 6277884 B1

L3: Entry 13 of 26

File: USPT

Aug 21, 2001

US-PAT-NO: 6277884

DOCUMENT-IDENTIFIER: US 6277884 B1

TITLE: Treatment of sexual dysfunction with N-hydroxyguanidine compounds

DATE-ISSUED: August 21, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
de Tejada; Inigo Saenz	Madrid			ES

US-CL-CURRENT: 514/565

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KM/C
Draw Desc	Image									

☐ 14. Document ID: US 6255290 B1

L3: Entry 14 of 26

File: USPT

Jul 3, 2001

US-PAT-NO: 6255290

DOCUMENT-IDENTIFIER: US 6255290 B1

TITLE: Antimutagenic compositions for treatment and prevention of photodamage to skin

DATE-ISSUED: July 3, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
von Borstel; Reid W.	Potomac	MD		
Romantsev; Fedor	Gaithersburg	MD		

US-CL-CURRENT: 514/45; 424/450, 514/43, 514/44, 514/46, 514/47, 514/48, 514/49,  
514/50, 514/51, 514/52, 514/844, 514/847, 514/848

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

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☐ 15. Document ID: US 6183743 B1

L3: Entry 15 of 26

File: USPT

Feb 6, 2001

US-PAT-NO: 6183743

DOCUMENT-IDENTIFIER: US 6183743 B1

TITLE: Modified factor VII

DATE-ISSUED: February 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hart; Charles E.	Brier	WA		
Petersen; Lars C.	Hoersholm			DK
Hedner; Ulla	Malmo			SE
Rasmussen; Mirella E.	Copenhagen			DK

US-CL-CURRENT: 424/94.64; 435/184, 435/212, 435/226, 514/802, 530/381

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

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☐ 16. Document ID: US 6168789 B1

L3: Entry 16 of 26

File: USPT

Jan 2, 2001

US-PAT-NO: 6168789

DOCUMENT-IDENTIFIER: US 6168789 B1

TITLE: Modified factor VII

DATE-ISSUED: January 2, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Berkner; Kathleen L.	Cleveland Heights	OH		
Petersen; Lars Christian	Hoersholm			DK
Hart; Charles E.	Brier	WA		
Hedner; Ulla	Malmo			SE
Bregengaard; Claus	Hellerup			DK

US-CL-CURRENT: 424/94.64; 435/184, 435/212, 435/226, 514/802, 530/381

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KVMC

☐ 17. Document ID: US 6071962 A

L3: Entry 17 of 26

File: USPT

Jun 6, 2000

US-PAT-NO: 6071962

DOCUMENT-IDENTIFIER: US 6071962 A

TITLE: Oxa acids and related compounds for treating skin conditions

DATE-ISSUED: June 6, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri	Mahwah	NJ		
Scancarella; Neil D.	Wyckoff	NJ		
Kalafsky; Robert	Ogdensburg	NJ		

US-CL-CURRENT: 514/558; 514/513, 514/559, 514/560

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KVMC

☐ 18. Document ID: US 6069169 A

L3: Entry 18 of 26

File: USPT

May 30, 2000

US-PAT-NO: 6069169

DOCUMENT-IDENTIFIER: US 6069169 A

TITLE: OXA acids and related compounds for treating skin conditions

DATE-ISSUED: May 30, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri	Mahwah	NJ		
Scancarella; Neil	Wyckoff	NJ		
Kalafsky; Robert	Ogdensburg	NJ		

US-CL-CURRENT: 514/532; 424/70.1, 514/546, 514/549, 514/550, 514/558, 514/559, 514/560, 514/568

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 19. Document ID: US 5997864 A

L3: Entry 19 of 26

File: USPT

Dec 7, 1999



US-PAT-NO: 5997864

DOCUMENT-IDENTIFIER: US 5997864 A

TITLE: Modified factor VII

DATE-ISSUED: December 7, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hart; Charles E.	Brier	WA		
Petersen; Lars C.	Hoersholm			DK
Hedner; Ulla	Malmo			SE
Rasmussen; Mirella E.	Copenhagen			DK

US-CL-CURRENT: 424/94.64; 435/212, 435/226, 514/12, 530/384

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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☐ 20. Document ID: US 5951990 A

L3: Entry 20 of 26

File: USPT

Sep 14, 1999

US-PAT-NO: 5951990

DOCUMENT-IDENTIFIER: US 5951990 A

TITLE: Ascorbyl-phosphoryl-cholesterol

DATE-ISSUED: September 14, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri S.	Mahwah	NJ		

US-CL-CURRENT: 424/401; 424/59, 424/60, 424/617, 424/641, 424/642, 424/70.1,  
424/70.2, 424/703, 514/169, 514/171, 514/474, 514/844, 514/880

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

☐ 21. Document ID: US 5932229 A

L3: Entry 21 of 26

File: USPT

Aug 3, 1999

US-PAT-NO: 5932229

DOCUMENT-IDENTIFIER: US 5932229 A

TITLE: Oxa diacids and related compounds for treating skin conditions

DATE-ISSUED: August 3, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri	Mahwah	NJ		
Scancarella; Neil	Wyckoff	NJ		
Kalafsky; Robert	Ogdensburg	NJ		

US-CL-CURRENT: 424/401; 424/443, 424/61, 424/701, 424/73, 424/DIG.5, 514/532,  
514/533, 514/546, 514/547, 514/550, 514/551, 514/552, 514/557, 514/561, 514/562,  
514/563, 514/564, 514/566, 514/568, 514/572, 514/574, 514/578, 514/625, 514/626,  
514/844, 514/846, 514/859, 514/861, 514/863, 514/880, 514/881, 514/937, 514/938,  
514/944

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
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☐ 22. Document ID: US 5847003 A

L3: Entry 22 of 26

File: USPT

Dec 8, 1998

US-PAT-NO: 5847003

DOCUMENT-IDENTIFIER: US 5847003 A

TITLE: Oxa acids and related compounds for treating skin conditions

DATE-ISSUED: December 8, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri	Mahwah	NJ		
Scancarella; Neil	Wyckoff	NJ		
Kalafsky; Robert	Ogdensburg	NJ		

US-CL-CURRENT: 514/532; 514/546, 514/549, 514/558, 514/559, 514/560

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

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☐ 23. Document ID: US 5834513 A

L3: Entry 23 of 26

File: USPT

Nov 10, 1998

US-PAT-NO: 5834513

DOCUMENT-IDENTIFIER: US 5834513 A

TITLE: Oxa diacids and related compounds for treating skin conditions

DATE-ISSUED: November 10, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri	Mahwah	NJ		
Scancarella; Neil	Wyckoff	NJ		
Kalafsky; Robert	Ogdensburg	NJ		

US-CL-CURRENT: 514/561; 514/564, 514/566, 514/574

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KVMC

☐ 24. Document ID: US 5833982 A

L3: Entry 24 of 26

File: USPT

Nov 10, 1998

US-PAT-NO: 5833982

DOCUMENT-IDENTIFIER: US 5833982 A

TITLE: Modified factor VII

DATE-ISSUED: November 10, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Berkner; Kathleen L.	Cleveland Heights	OH		
Petersen; Lars Christian	Hoersholm			DK
Hart; Charles E.	Brier	WA		
Hedner; Ulla	Malmo			SE
Bregengaard; Claus	Hellerup			DK

US-CL-CURRENT: 424/94.64; 435/212, 435/226, 514/12, 530/384

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KVMC

☐ 25. Document ID: US 5733572 A

L3: Entry 25 of 26

File: USPT

Mar 31, 1998

US-PAT-NO: 5733572

DOCUMENT-IDENTIFIER: US 5733572 A

TITLE: Gas and gaseous precursor filled microspheres as topical and subcutaneous delivery vehicles

DATE-ISSUED: March 31, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Unger; Evan C.	Tucson	AZ		
Matsunaga; Terry O.	Tucson	AZ		
Yellowhair; David	Tucson	AZ		

US-CL-CURRENT: 424/450; 424/1.21, 424/489, 424/9.321, 424/9.4, 436/829

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KVMC

☐ 26. Document ID: US 5652274 A

L3: Entry 26 of 26

File: USPT

Jul 29, 1997

US-PAT-NO: 5652274

DOCUMENT-IDENTIFIER: US 5652274 A

TITLE: Therapeutic-wound healing compositions and methods for preparing and using same

DATE-ISSUED: July 29, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Martin; Alain	Ringoes	NJ	08551	

US-CL-CURRENT: 514/724; 514/461, 514/562, 514/567, 514/725, 514/774, 514/784

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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Terms	Documents
L2 and liposome\$	26

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L5: Entry 5 of 7

File: USPT

Aug 11, 1987

DOCUMENT-IDENTIFIER: US 4686211 A

TITLE: Medical composition for external application

Detailed Description Text (22):

2 g of lidocaine hydrochloride was added to 8 g of dihexadecyl phosphate arginine salt, to which 90 g of purified water, followed by agitating to obtain an opaque gel-like composition. The composition was maintained at 50.degree. C. and irradiated with an ultrasonic wave at 25 kHz and 100 W, by which the viscosity was lowered to obtain a lidocaine hydrochloride external agent.

**WEST****End of Result Set**☐

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L5: Entry 7 of 7

File: USPT

Nov 29, 1983

DOCUMENT-IDENTIFIER: US 4418061 A

TITLE: Secalonic acid derivatives and method for preparing thereof

Brief Summary Text (28):

The secalonic acid derivatives of the formula (I) can be converted into the salts of a monovalent metal such as sodium, potassium and lithium; the salts of a divalent metal such as calcium, iron (II), copper (II) and magnesium; the salts of a trivalent metal such as iron (III) and aluminum; the salts of an ammonium; and the salts of a nitrogen-containing organic base such as triethylamine, tributylamine, ethanolamine, triethanolamine, dibenzylamine, N,N-dibenzylethylenediamine, N-benzyl-.beta.-phenethylamine, N-methylmorpholine, procaine, ephenamine, dibucaine, lidocaine and L-arginine.

**WEST**

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L7: Entry 27 of 63

File: USPT

Mar 27, 2001

DOCUMENT-IDENTIFIER: US 6207713 B1

TITLE: Topical and oral delivery of arginine to cause beneficial effectsAbstract Text (1):

The use of orally administered L-arginine in conjunction with a topical preparation for producing enhanced blood flow in tissue thus causing beneficial effects such as warming cold tissue of the hands and feet, promoting hair growth on scalp tissue lacking sufficient hair, promoting healing of superficial ulcers such as leg ulcers in persons with diabetes, and overcoming male erectile failure (impotence) is disclosed. Specifically, use of orally administered L-arginine in conjunction with this is topical preparation provides local delivery of the amino acid L-arginine, an important biological precursor to the main substance which is responsible for relaxation of blood vessels permitting enhancement of blood flow. In the preferred embodiments, the L-arginine is provided so that it can be topically applied to the cold tissue. The preparation also contains an agent which aids in the transfer of L-arginine into the tissue. In the preferred embodiments this agent overcomes the resistance to transfer caused by the high charge density of L-arginine. In the preferred embodiments this means is high ionic strength created by addition of sodium chloride. This preparation, when topically applied to cold tissue, warming begins within 10 to 45 minutes and is sustained for periods as long as 2 to 18 hours. Further this preparation when applied nightly to scalp tissue lacking sufficient hair for a period of time causes substantial growth of hair on the scalp lacking sufficient hair, causes the healing of superficial ulcers such as leg ulcers and overcomes impotence.

Brief Summary Text (3):

This invention relates to the use of L-arginine orally alone or in conjunction with topical application of a cream, gel, or other vehicle which contains substances such as L-arginine which delivers these substances into tissue for the purpose of producing beneficial effects such as warming of cold or cool tissues, growth of hair on the scalp, healing of leg ulcers secondary to diabetes or confinement to bed, relief of impotence, as well as beneficial effects through restoration of natural mechanisms based on improvement of local blood supply.

Brief Summary Text (10):

It was discovered that topical application of the nitric oxide precursor, L-arginine, in its various forms including orally alone or in conjunction with a variety of topical preparations, either by themselves or with other agents to aid in penetration such as a high ionic strength environment, neutralization of its charge in a complex or by other means, or included in a liposome or other biological carrier, when administered to cold or cool tissue causes a substantial and prolonged warming effect in the tissue, grow hair on hair-depleted scalp, facilitate healing of superficial ulcers such as leg ulcers and overcome impotence in many subjects.

Brief Summary Text (18):

In preferred embodiments, the oral delivery vehicles are capsules or tablets containing L-arginine used alone or in conjunction with a topical delivery vehicle such as a penetrating cream. In the cream the L-arginine is present as L-arginine hydrochloride in a concentration sufficient to produce the desired effect and the agent which creates the hostile biophysical environment is sodium chloride at a concentration sufficient to aid in tissue absorption.

Brief Summary Text (27):

A variety of means for effecting absorption of the active agent from the topical cream might be envisioned. One principle behind the absorption of a highly charged molecule such as L-arginine into tissue is to either create a biophysically hostile environment in the delivery vehicle such that L-arginine would prefer to be in tissue, or to package L-arginine in such a way that it is carried into tissue or neutralize its charge by derivitization or forming a neutral salt. Examples of biophysically hostile environments, include but are not limited to, high ionic strength, high or low pH, and highly hydrophobic environments. Examples of packaging which would be carried into tissue includes liposomes or emulsions of collagen, collagen peptides or other components of skin or basement membrane. Examples of neutralization of charge include the salt, arginine glutamate which is electronically neutral.

## CLAIMS:

4. A method of increasing local blood flow by delivering a nitric oxide releasing substance selected from a member of the group consisting of L-arginine, L-arginine salts and L-arginine derivatives comprising the step of orally administering to the body a delivery vehicle for the substance, said delivery vehicle containing an effective amount of the substance and a concentration of ionic salt sufficient to create a hostile biophysical environment which causes the substance to migrate from said delivery vehicle to the surrounding tissue where it is absorbed in conjunction with the step of topically applying a topical delivery vehicle containing an effective amount of the substance and a concentration of ionic salt sufficient to create a hostile biophysical environment which causes the substance to migrate from the vehicle to the selected area of skin where the substance is absorbed by tissue.
8. The method of claim 4 wherein a delivery vehicle that is orally administered comprises L-arginine (0.5-30 g/day), and the topical delivery vehicle that is applied to the skin comprises water (20-80% ), mineral oil (3-18%), glyceryl stearate (0.5-12%), squalene (0.2-12%), cetyl alcohol (0.1-11%), propylene glycol stearate (0.1-11%), wheat germ oil (0.1-6%), glyceryl stearate (0.1-6%), isopropyl myristate (0.1-6%), stearyl stearate (0-6%), polysorbate 60 (0.1-50%), propylene glycol (0.05-5%), tocopherol acetate (0.05-5%), collagen (0.05-5%), sorbitan stearate (0.5-5%), vitamin A&D (0.02-4%), triethanolamine (0.01-4%), methylparaben (0.01-4%), aloe vera extract (0.01-4%), imidazolidinyl urea (0.01-4%), propylparaben (0.01-4%), bha (0.01-4%), L-arginine hydrochloride (0.25% to 25%), sodium chloride (0.25% to 25%), and magnesium chloride (0.25% to 25%).
10. The method of claim 8 wherein the topical delivery vehicle further comprises L-arginine glutamate (0.25-25%).
11. A method of increasing local blood flow by delivering a nitric oxide releasing substance selected from a member of the group consisting of L-arginine, L-arginine salts and L-arginine derivatives comprising the step of orally administering to the body a delivery vehicle for the substance, said delivery vehicle containing an effective amount of the substance and a concentration of ionic salt sufficient to create a hostile biophysical environment which causes the substance to migrate from said delivery vehicle to the surrounding tissue where it is absorbed, in conjunction with the step of topically applying a topical delivery vehicle containing an effective amount of the substance within a liposome, so that the liposome containing the substance migrates from the delivery vehicle into the skin where the substance is absorbed by tissue.



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L7: Entry 23 of 63

File: USPT

Jun 5, 2001

DOCUMENT-IDENTIFIER: US 6242010 B1

TITLE: Synergistic antioxidant compositions in management of hemorrhoids and other ano-rectal inflammatory conditions

Brief Summary Text (16):

U.S. Pat. No. 5,595,753, dated Jan. 21, 1997, taught the use of L-arginine for topical formulations for treating hemorrhoidal pain and sphincteric muscle spasm in gastrointestinal tract. Inflammation of the anal mucosa and hemorrhoids cause spasms of the internal anal sphincter with consequent ano-rectal pain. The pain associated with hemorrhoids is due primarily to the adjacent inflammatory reaction. Nitric oxide (NO) is a known modulator of sphincter tone, to which the amino acid L-arginine acts as a competitive inhibitor of compounds that block the action of NO production. Thus, L-arginine's use as taught in the '753 patent in topical preparations, alleviates anal pain by decreasing internal sphincter tone and thereby abolishing sphincter spasm. This amino acid does not participate as an antioxidant in the amelioration of the local inflammatory response, as proposed by the compositions of the present patent application.

Detailed Description Text (18):

\*As liposomes: Biocell SOD, Brooks Industries and Rovisome ACE, R.I.T.A. Corporation or Crodasome AECL Corp.

Detailed Description Text (20):

The active ingredients in creams, lotions, ointments, sprays, pads, patches, enemas, foams and suppositories and others may be delivered in novel delivery vehicles such as micro-encapsulation in liposomes or glycospheres. Other delivery technologies include microsponges or the substitute cell membrane (Completech .TM.) which entrap the active ingredients for both protection and for slower release. Rectal foams can be prepared as topical aerosol compositions, again, as are well known in this industry with the express purpose of delivering the antioxidant complex of this application to reduce free radical damage in this ano-rectal inflammatory conditions, including inflammatory bowel diseases (ulcerative colitis, Crohns colitis, radiation proctitis and others).

Detailed Description Paragraph Table (2):

Ingredient Percentage by Weight Amber Petroleum Balance Mineral Jelly 48.00 Lanolin Alcohol 2.00 Lanolin 3.00 Squalene Oil 3.00 Demineralized Water 1.00 L-Glutathione 0.20 L-Selenomethionine 0.05 \*Superoxide Dismutase 0.15 \*Vitamins A, C, E (liposome) 3.00 Japanese Green Tea 0.50 Thyme Oil 0.10 Preservative

Detailed Description Paragraph Table (4):

Ingredient Percentage by Weight L-Glutathione 0.10 L-Selenomethionine 0.05 \*Superoxide Dismutase 0.25 \*Vitamins A, C, E as liposome 3.00 or as tocopheryl acetate 1.00 magnesium ascorbyl phosphate 2.00 retinyl palmitate, retinyl palmitate 0.50 zinc oxide/zinc pyrithione 0.15 \*As liposomes: Biocell SOD, Brooks Industries and Rovisome ACE, R.I.T.A. Corporation or Crodasome AECL Corp.

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 30 of 63 returned.**☐ 1. Document ID: US 6492331 B1

L7: Entry 1 of 63

File: USPT

Dec 10, 2002

US-PAT-NO: 6492331

DOCUMENT-IDENTIFIER: US 6492331 B1

TITLE: NL8 tie ligands homologues

DATE-ISSUED: December 10, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Godowski; Paul J.	Pacifica	CA		
Gurney; Austin L.	Belmont	CA		

US-CL-CURRENT: 514/12; 424/178.1, 514/2, 530/350, 530/387.1, 530/387.3, 530/402,  
536/23.1, 536/23.4, 536/23.5

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KMC</a>
<a href="#">Draw Desc</a>	<a href="#">Image</a>									

☐ 2. Document ID: US 6485950 B1

L7: Entry 2 of 63

File: USPT

Nov 26, 2002

US-PAT-NO: 6485950

DOCUMENT-IDENTIFIER: US 6485950 B1

TITLE: Isozyme of autoclavable superoxide dismutase (SOD), a process for the identification and extraction of the SOD in cosmetic, food and pharmaceutical compositions

DATE-ISSUED: November 26, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kumar; Sanjay	Himachal Pradesh			IN
Sahoo; Rashmita	Himachal Pradesh			IN
Ahuja; Paramvir Singh	Himachal Pradesh			IN

US-CL-CURRENT: 435/189; 424/94.4, 435/183

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KMC</a>
<a href="#">Draw Desc</a>	<a href="#">Image</a>									

☐ 3. Document ID: US 6482839 B1

L7: Entry 3 of 63

File: USPT

Nov 19, 2002

US-PAT-NO: 6482839

DOCUMENT-IDENTIFIER: US 6482839 B1

TITLE: Pyridine-thiols for treatment of a follicular dermatosis

DATE-ISSUED: November 19, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Thornfeldt; Carl R.	Nampa	ID		

US-CL-CURRENT: 514/345; 514/859

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 4. Document ID: US 6458841 B2

L7: Entry 4 of 63

File: USPT

Oct 1, 2002

US-PAT-NO: 6458841

DOCUMENT-IDENTIFIER: US 6458841 B2

TITLE: Topical and oral delivery of arginine to cause beneficial effects

DATE-ISSUED: October 1, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fossel; Eric T.	South Hero	VT		

US-CL-CURRENT: 514/565; 424/401, 424/439, 424/450

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 5. Document ID: US 6455496 B1

L7: Entry 5 of 63

File: USPT

Sep 24, 2002

US-PAT-NO: 6455496

DOCUMENT-IDENTIFIER: US 6455496 B1

TITLE: NL2 TIE ligand homologue polypeptide

DATE-ISSUED: September 24, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Goddard; Audrey	San Francisco	CA		
Godowski; Paul J.	Burlingame	CA		
Gurney; Austin L.	Belmont	CA		

US-CL-CURRENT: 514/12; 514/2, 530/350, 530/387.1, 530/402, 536/23.1, 536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

☐ 6. Document ID: US 6455061 B2

L7: Entry 6 of 63

File: USPT

Sep 24, 2002

US-PAT-NO: 6455061

DOCUMENT-IDENTIFIER: US 6455061 B2

TITLE: Unit dosage forms for the treatment of herpes simplex

DATE-ISSUED: September 24, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Richardson; Kenneth T.	Anchorage	AK		
Pearson; Don C.	Lakewood	WA		

US-CL-CURRENT: 424/422; 424/427, 424/428, 514/547, 514/574

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

☐ 7. Document ID: US 6440435 B1

L7: Entry 7 of 63

File: USPT

Aug 27, 2002

US-PAT-NO: 6440435

DOCUMENT-IDENTIFIER: US 6440435 B1

TITLE: Use of N-acylamino acid compounds as texturing agents

DATE-ISSUED: August 27, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Michel; Nelly	Maisons Alfort			FR
Berger; Christian	Ecully			FR

US-CL-CURRENT: 424/401

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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☐ 8. Document ID: US H002043 H

L7: Entry 8 of 63

File: USPT

Aug 6, 2002

US-PAT-NO: H002043

DOCUMENT-IDENTIFIER: US H002043 H

TITLE: Skin care compositions

DATE-ISSUED: August 6, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Deckner; George Endel	Cincinnati	OH		
SaNogueira, Jr.; James Pedrosa	Wyoming	OH		
Zukowski; Joseph Michael	Cincinnati	OH		

US-CL-CURRENT: 514/559; 514/549

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 9. Document ID: US 6426218 B1

L7: Entry 9 of 63

File: USPT

Jul 30, 2002

US-PAT-NO: 6426218

DOCUMENT-IDENTIFIER: US 6426218 B1

TITLE: NL3 TIE ligand homologue nucleic acids

DATE-ISSUED: July 30, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Goddard; Audrey	San Francisco	CA		
Godowski; Paul J.	Burlingame	CA		
Gurney; Austin L.	Belmont	CA		

US-CL-CURRENT: 435/325; 435/252.3, 435/254.11, 435/320.1, 435/69.1, 530/350,  
536/23.1, 536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
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☐ 10. Document ID: US 6420542 B1

L7: Entry 10 of 63

File: USPT

Jul 16, 2002

US-PAT-NO: 6420542

DOCUMENT-IDENTIFIER: US 6420542 B1

TITLE: Tie ligands

DATE-ISSUED: July 16, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Godowski; Paul J.	South San Francisco	CA	94002	
Gurney; Austin L.	South San Francisco	CA	94002	

US-CL-CURRENT: 536/23.5; 435/252.3, 435/254.11, 435/320.1, 435/325, 435/471,  
435/69.1, 435/71.1, 435/71.2, 530/350

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 11. Document ID: US 6413770 B1

L7: Entry 11 of 63

File: USPT

Jul 2, 2002

US-PAT-NO: 6413770

DOCUMENT-IDENTIFIER: US 6413770 B1

TITLE: NL4 tie ligand homologue nucleic acid

DATE-ISSUED: July 2, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Godowski; Paul	Burlingame	CA		
Gurney; Austin	Belmont	CA		
Hillan; Kenneth J.	San Francisco	CA		
Botstein; David	Belmont	CA		
Goddard; Audrey	San Francisco	CA		
Roy; Margaret	San Francisco	CA		
Ferrara; Napoleone	San Francisco	CA		
Tumas; Daniel	Orinda	CA		
Schwall; Ralph	Pacifica	CA		

US-CL-CURRENT: 435/325; 435/252.3, 435/254.11, 435/320.1, 435/69.1, 530/350,  
536/23.1, 536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
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☐ 12. Document ID: US 6372491 B1

L7: Entry 12 of 63

File: USPT

Apr 16, 2002

US-PAT-NO: 6372491

DOCUMENT-IDENTIFIER: US 6372491 B1

TITLE: Tie ligands

DATE-ISSUED: April 16, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Goddard; Audrey	San Francisco	CA		
Godowski; Paul J.	Burlingame	CA		
Gurney; Austin L.	Belmont	CA		

US-CL-CURRENT: 435/325; 435/252.3, 435/254.11, 435/320.1, 435/69.1, 536/23.1,  
536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 13. Document ID: US 6368853 B1

L7: Entry 13 of 63

File: USPT

Apr 9, 2002

US-PAT-NO: 6368853

DOCUMENT-IDENTIFIER: US 6368853 B1

TITLE: Tie ligand homologues

DATE-ISSUED: April 9, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Godowski; Paul J.	Pacifica	CA		
Gurney; Austin L.	Belmont	CA		

US-CL-CURRENT: 435/325; 435/252.3, 435/254.11, 435/320.1, 435/69.1, 530/350,  
536/23.1, 536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
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☐ 14. Document ID: US 6358539 B1

L7: Entry 14 of 63

File: USPT

Mar 19, 2002

US-PAT-NO: 6358539

DOCUMENT-IDENTIFIER: US 6358539 B1

TITLE: Pharmaceutical compositions for reducing the appearance of cellulite

DATE-ISSUED: March 19, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Murad; Howard	Marina del Rey	CA	90292	

US-CL-CURRENT: 424/725; 424/728, 424/752, 514/860

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 15. Document ID: US 6350450 B1

L7: Entry 15 of 63

File: USPT

Feb 26, 2002

US-PAT-NO: 6350450

DOCUMENT-IDENTIFIER: US 6350450 B1

TITLE: TIE ligand homologue antibody

DATE-ISSUED: February 26, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Godowski; Paul J.	Burlingame	CA		
Gurney; Austin L.	Belmont	CA		
Goddard; Audrey	San Francisco	CA		
Hillan; Kenneth	San Francisco	CA		

US-CL-CURRENT: 424/178.1; 424/183.1, 530/350, 530/387.1, 530/387.3, 530/387.9,  
530/388.2, 530/389.1, 530/391.1, 530/391.7, 536/23.1, 536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 16. Document ID: US 6348351 B1

L7: Entry 16 of 63

File: USPT

Feb 19, 2002

US-PAT-NO: 6348351

DOCUMENT-IDENTIFIER: US 6348351 B1

TITLE: Tie receptor tyrosine kinase ligand homologues

DATE-ISSUED: February 19, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fong; Sherman	Alameda	CA		
Ferrara; Napoleone	San Francisco	CA		
Goddard; Audrey	San Francisco	CA		
Godowski; Paul J.	Burlingame	CA		
Gurney; Austin L.	Belmont	CA		
Hillan; Kenneth	San Francisco	CA		
Williams; P. Mickey	Half Moon Bay	CA		

US-CL-CURRENT: 435/325; 435/252.3, 435/254.11, 435/320.1, 435/69.1, 530/350,  
536/23.1, 536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 17. Document ID: US 6348350 B1

L7: Entry 17 of 63

File: USPT

Feb 19, 2002

US-PAT-NO: 6348350

DOCUMENT-IDENTIFIER: US 6348350 B1

TITLE: Ligand homologues

DATE-ISSUED: February 19, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Goddard; Audrey	San Francisco	CA		
Godowski; Paul J.	Burlingame	CA		
Gurney; Austin L.	Belmont	CA		

US-CL-CURRENT: 435/325; 435/252.3, 435/254.11, 435/320.1, 435/69.1, 530/350,  
536/23.1, 536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
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☐ 18. Document ID: US H002013 H

L7: Entry 18 of 63

File: USPT

Feb 5, 2002

US-PAT-NO: H002013

DOCUMENT-IDENTIFIER: US H002013 H

TITLE: Skin care compositions

DATE-ISSUED: February 5, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyd; Roberta Atwood	Cincinnati	OH		
Deckner; George Endel	Cincinnati	OH		
SaNogueira, Jr.; James Pedrosa	Wyoming	OH		
Zukowski; Joseph Michael	Cincinnati	OH		

US-CL-CURRENT: 424/401; 424/63

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 19. Document ID: US 6333356 B1

L7: Entry 19 of 63

File: USPT

Dec 25, 2001

US-PAT-NO: 6333356

DOCUMENT-IDENTIFIER: US 6333356 B1

TITLE: Compounds for treating skin conditions

DATE-ISSUED: December 25, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri	Mahwah	NJ		
Scancarella; Neil	Wyckoff	NJ		
Kalafsky; Robert	Ogdensburg	NJ		

US-CL-CURRENT: 514/631; 514/637

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 20. Document ID: US 6287601 B1

L7: Entry 20 of 63

File: USPT

Sep 11, 2001

US-PAT-NO: 6287601

DOCUMENT-IDENTIFIER: US 6287601 B1

TITLE: Topical nitric oxide donor compositions

DATE-ISSUED: September 11, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Russell; Meri Charmyne	Des Moines	IA	50312	

US-CL-CURRENT: 424/485; 424/422, 424/424, 424/426, 424/443, 424/444, 424/450,  
424/484, 424/718, 424/78.02, 424/78.05, 514/150, 514/151, 514/165, 514/166, 514/564,  
514/567, 514/610, 514/611, 514/644, 514/645, 514/740, 514/741, 514/742

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 21. Document ID: US 6274554 B1

L7: Entry 21 of 63

File: USPT

Aug 14, 2001

US-PAT-NO: 6274554

DOCUMENT-IDENTIFIER: US 6274554 B1

TITLE: Method for preventing and treating hearing loss using a neurturin protein product

DATE-ISSUED: August 14, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Magal; Ella	Thousand Oaks	CA		
Delaney; John M.	Newbury Park	CA		

US-CL-CURRENT: 514/12; 424/185.1, 530/300, 530/324, 530/350

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 22. Document ID: US 6274151 B1

L7: Entry 22 of 63

File: USPT

Aug 14, 2001

US-PAT-NO: 6274151

DOCUMENT-IDENTIFIER: US 6274151 B1

TITLE: Use of n-acylamino acid compounds as texturing agents

DATE-ISSUED: August 14, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Michel; Nelly	Maisons Alfort			FR
Berger; Christian	Ecully			FR

US-CL-CURRENT: 424/401

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 23. Document ID: US 6242010 B1

L7: Entry 23 of 63

File: USPT

Jun 5, 2001

US-PAT-NO: 6242010

DOCUMENT-IDENTIFIER: US 6242010 B1

TITLE: Synergistic antioxidant compositions in management of hemorrhoids and other ano-rectal inflammatory conditions

DATE-ISSUED: June 5, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hersh; Theodore	Atlanta	GA		

US-CL-CURRENT: 424/702; 424/400, 424/729, 424/94.1, 424/DIG.15, 514/562, 514/882, 514/937, 514/944, 514/966, 514/969

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 24. Document ID: US 6238678 B1

L7: Entry 24 of 63

File: USPT

May 29, 2001

US-PAT-NO: 6238678

DOCUMENT-IDENTIFIER: US 6238678 B1

TITLE: Methods of regulating skin appearance with vitamin B3 compound

DATE-ISSUED: May 29, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Oblong; John Erich	Cincinnati	OH		
Bissett; Donald Lynn	Hamilton	OH		
Biedermann; Kimberly Ann	Cincinnati	OH		

US-CL-CURRENT: 424/401; 424/70.1, 514/356, 514/458, 514/725, 514/844, 514/847,  
514/887, 514/944

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 25. Document ID: US 6231894 B1

L7: Entry 25 of 63

File: USPT

May 15, 2001

US-PAT-NO: 6231894

DOCUMENT-IDENTIFIER: US 6231894 B1

TITLE: Treatments based on discovery that nitric oxide synthase is a paraquat diaphorase

DATE-ISSUED: May 15, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stamler; Jonathan S.	Chapel Hill	NC		
Day; Brian J.	Englewood	CO		
Gross; Steven S.	New York	NY		
Griffith; Owen W.	Milwaukee	WI		

US-CL-CURRENT: 424/718; 514/340, 514/610

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KMC

☐ 26. Document ID: US 6217888 B1

L7: Entry 26 of 63

File: USPT

Apr 17, 2001

US-PAT-NO: 6217888

DOCUMENT-IDENTIFIER: US 6217888 B1

TITLE: Methods of regulating skin appearance with vitamin B3 compound

DATE-ISSUED: April 17, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Oblong; John Erich	Cincinnati	OH		
Bissett; Donald Lynn	Hamilton	OH		
Biedermann; Kimberly Ann	Cincinnati	OH		

US-CL-CURRENT: 424/401; 514/844, 514/845, 514/846, 514/938

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 27. Document ID: US 6207713 B1

L7: Entry 27 of 63

File: USPT

Mar 27, 2001

US-PAT-NO: 6207713

DOCUMENT-IDENTIFIER: US 6207713 B1

TITLE: Topical and oral delivery of arginine to cause beneficial effects

DATE-ISSUED: March 27, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fossel; Eric T.	S. Hero	VT	05486	

US-CL-CURRENT: 514/565; 424/401, 424/439, 424/450

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 28. Document ID: US 6174533 B1

L7: Entry 28 of 63

File: USPT

Jan 16, 2001

US-PAT-NO: 6174533

DOCUMENT-IDENTIFIER: US 6174533 B1

TITLE: Skin care compositions and method of improving skin appearance

DATE-ISSUED: January 16, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
SaNoqueira, Jr.; James Pedrosa	Wyoming	OH		
Dawes; Nancy Coultrip	Cincinnati	OH		
Sine; Mark Richard	Morrow	OH		

US-CL-CURRENT: 424/401; 424/78.03, 514/844, 514/859

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 29. Document ID: US 6150403 A

L7: Entry 29 of 63

File: USPT

Nov 21, 2000

US-PAT-NO: 6150403

DOCUMENT-IDENTIFIER: US 6150403 A

TITLE: Topical compositions for regulating the oily/shiny appearance of skin

DATE-ISSUED: November 21, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Biedermann; Kimberly A.	Cincinnati	OH		
Schubert; Harry L.	Fairfield	OH		
Parran, Jr.; John J.	Sebastian	FL		

US-CL-CURRENT: 514/460

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
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☐ 30. Document ID: US 6110721 A

L7: Entry 30 of 63

File: USPT

Aug 29, 2000

US-PAT-NO: 6110721

DOCUMENT-IDENTIFIER: US 6110721 A

TITLE: Polypeptides and coagulation therapy

DATE-ISSUED: August 29, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gibbs; Craig S.	San Francisco	CA		
Leung; Lawrence L. K.	Hillsborough	CA		
Tsiang; Manuel	Foster City	CA		

US-CL-CURRENT: 435/214

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
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[Previous Page](#)

[Next Page](#)

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L7: Entry 37 of 63

File: USPT

Apr 4, 2000

DOCUMENT-IDENTIFIER: US 6045827 A

TITLE: Treatment of equine laminitis

Brief Summary Text (19):

In accordance with the invention, a topical composition for the treatment of equine laminitis is described comprising a fast acting nitric oxide (NO) donor, preferably nitroglycerin, and a sustained acting NO donor, preferably L-arginine (L-Arg), dispersed in a lipid-based carrier. In a preferred embodiment of the invention, the topical composition further comprises a non-steroidal anti-inflammatory drug (NSAID). The lipid-based carrier comprises preferably a membrane forming lipid, such as a phosphatidylcholine (e.g., a naturally occurring, naturally derived, synthetic, or semi-synthetic lecithin). Preferably, the topical combination is in the form of an ointment, emulsion, creme, gel, or foam that permits the delivery of the active ingredients of the fast acting nitric oxide donor and L-Arg through the hoof, skin, or both of an affected equine.

Detailed Description Text (4):

Lipid-Based Carrier--Any carrier, preferably a pharmacologically acceptable carrier, which is comprised of lipid or fatty components, especially those having a hydrophobic moiety and a hydrophilic moiety, and which enables the transdermal transport of an active ingredient from the surface of the skin to the regions of the body below the skin. Once below the skin, the active ingredient(s) may remain localized in or around the region(s) to which the combination or composition of interest, which is partially comprised of the lipid-based carrier, has been applied. Alternatively, the active ingredient(s) may become available systemically. A preferred class of lipids, include those that form membranes, bilayers, vesicles, liposomes and the like, particularly biological membranes. Examples of such membrane-forming lipids include but are not limited to phospholipids, glycolipids and cholesterol-type lipids. Preferred lipids include phosphatidyl choline, phosphatidyl serine, phosphatidyl inositol, phosphatidyl inositol and the like.

## CLAIMS:

1. A topical composition for the treatment of equine laminitis comprising a fast acting nitric oxide (NO) donor and L-arginine (L-Arg) dispersed in a lipid-based carrier.



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L7: Entry 51 of 63

File: USPT

Jul 13, 1999

DOCUMENT-IDENTIFIER: US 5922332 A

TITLE: Topical delivery of arginine to overcome painAbstract Text (1):

The use of a topical preparation for producing enhanced levels of the precursor of the endogenous analgesic kyotorphin for the purpose of overcoming pain is disclosed. Specifically, use of a topical preparation provides local delivery of the amino acid L-arginine, an important biological precursor to the main substance which is responsible for relaxation of blood vessels permitting enhancement of blood flow. In the preferred embodiments, the L-arginine is provided so that it can be topically applied to the area of pain. The preparation also contains an agent which aids in the transfer of L-arginine into the tissue. In the preferred embodiments this agent overcomes the resistance to transfer caused by the high charge density of L-arginine. In the preferred embodiments this means is high ionic strength created by addition of sodium chloride. Other preparations containing, in addition to L-arginine, substances which overcome pain by other mechanisms such as capsaicin which depletes sensory fibers of substance P constitutes an additional embodiment. These preparations, when topically applied to the area of pain overcomes pain.

Brief Summary Text (3):

This invention relates to the use of a topical cream, gel, or other vehicle which contains substances such as L-arginine which delivers these substances into tissue for the purpose of producing beneficial effects such as relief of pain, as well as beneficial effects through a variety of mechanisms such as providing increased levels of natural analgesic kyotorphin and/or restoration of natural mechanisms based on improvement of local blood supply.

Brief Summary Text (8):

It was discovered that topical application of the nitric oxide precursor, L-arginine, in its various forms including a variety of topical preparations, either by themselves or with other agents to aid in penetration such as a high ionic strength environment, neutralization of its charge in a complex or by other means, or included in a liposome or other biological carrier, when administered to painful areas of the body can overcome pain in many persons. It was further discovered that such topical preparations described above when fortified with capsaicin or its source extract, oleoresin capsicum, are administered to painful areas of the body can overcome pain in many persons.

Detailed Description Text (10):

A variety of means for effecting absorption of the active agent from the topical cream might be envisioned. One principle behind the absorption of a highly charged molecule such as L-arginine into tissue is to either create a biophysically hostile environment in the delivery vehicle such that L-arginine would prefer to be in tissue, or to package L-arginine in such a way that it is carried into tissue or neutralize its charge by derivitization or forming a neutral salt. Examples of biophysically hostile environments, include but are not limited to, high ionic strength, high or low pH, and highly hydrophobic environments. Examples of packaging which would be carried into tissue includes liposomes or emulsions of collagen, collagen peptides or other components of skin or basement membrane. Examples of neutralization of charge include the salt, arginine glutamate which is electronically neutral.

## CLAIMS :

1. A method of overcoming pain comprising delivering a kyotorphin releasing substance selected from a member of the group consisting of L-arginine, L-arginine salts and L-arginine derivatives, to skin comprising the step of topically applying to the skin a vehicle containing an effective amount of the substance, and a concentration of ionic salt sufficient to create an ionic environment which causes the substance to migrate from the vehicle to the skin where the substance is absorbed in conjunction with delivering a P depleting agent selected from a member of the group consisting of capsaicin and oleoresin to the skin.

4. The method of claim 1 wherein a vehicle containing the substance and the P depleting agent within a liposome, and the ionic salt is applied to the skin.

5. The method of claim 1 wherein a vehicle containing the substance and the P depleting agent within a liposome and an ionic salt concentration sufficient to create an ionic strength environment within the liposome is applied to the skin so that the liposomes migrate from the vehicle to the skin.

**WEST**

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L7: Entry 52 of 63

File: USPT

Apr 20, 1999

DOCUMENT-IDENTIFIER: US 5895658 A

TITLE: Topical delivery of L-arginine to cause tissue warmingAbstract Text (1):

A preparation is disclosed for producing enhanced blood flow in tissue thus causing beneficial effects such as warming cold tissue of the hands and feet. Specifically, this is a preparation which provides local delivery of the amino acid L-arginine, an important biological precursor to the main substance which is responsible for relaxation of blood vessels permitting enhancement of blood flow. In the preferred embodiments, the L-arginine is provided so that it can be topically applied to the cold tissue. The preparation also contains agents which aids in the transfer of L-arginine into the tissue. In the preferred embodiments this agent overcomes the resistance to transfer caused by the high charge density of L-arginine. In the preferred embodiments this means is high ionic strength created by addition of choline chloride, magnesium chloride and sodium chloride. This preparation, when topically applied to cold tissue, warming begins within about 10 to 45 minutes and is sustained for periods as long as about 2 to 18 hours.

Brief Summary Text (3):

This invention relates to topical application of a cream, gel, or other vehicle which contains substances such as L-arginine which delivers these substances into tissue for the purpose of producing beneficial effects such as warming of cold or cool tissues, growth of hair on the scalp, healing of leg ulcers secondary to diabetes or confinement to bed, as well as beneficial effects through restoration of natural mechanisms based on improvement of local blood supply.

Brief Summary Text (9):

It was discovered that topical application of a nitric oxide precursor, L-arginine, in its various forms contained in a variety of topical preparations, either by themselves or with other agents to aid in penetration, such as a high ionic strength environment, neutralization of its charge in a complex or by other means, or included in a liposome or other biological carrier, or with an added penetrating agent when administered to cold or cool tissue causes a substantial and prolonged warming effect in the tissue.

Detailed Description Text (9):

A variety of means for effecting or improving absorption of the active agent can be envisioned. One principle behind the absorption of a highly charged molecule such as L-arginine into tissue is to either create a biophysically hostile environment in the delivery vehicle such that L-arginine would prefer to be in tissue, or to package L-arginine in such a way that it is carried into tissue or neutralize its charge by derivitization or forming a neutral salt. Examples of biophysically hostile environments, include but are not limited to; high ionic strength by the addition of ionic salts such as sodium chloride, magnesium chloride or choline chloride; high or low pH by adding pharmaceutically acceptable acids or bases; and highly hydrophobic environments by decreasing water content and increasing lipid, oil and/or wax content. Examples of packaging which would be carried into tissue includes liposomes or emulsions of collagen, collagen peptides or other components of skin or basement membrane. Examples of neutralization of charge include delivery of the active agent in the form of an ester or salt such as arginine glutamate which is electronically neutral. In each case of creating a hostile biophysical environment for the active agent, the agent was added to an appropriate preparation. In the case of creating a

high ionic strength ions such as but not limited to sodium chloride, potassium chloride, choline chloride, magnesium chloride, lithium chloride, alone or in combination were added in high concentration. Other highly charged molecules such as polylysine, polyglutamine, polyaspartate or copolymers of such charged amino acids may be used to create the hostile biophysical environment. Alternatively a hostile biophysical environment may be created by placing the highly charged L-arginine in an hydrophobic, oily environment such as in an oil-based cream containing little or no water. Absorption may further be aided by combining the use of hostile biophysical environments with the use of penetrating agents such as oleoresin capsicum or molecules containing heterocyclic rings to which are attached hydrocarbon chains.

#### CLAIMS:

1. A method of warming tissue comprising delivering a nitric oxide releasing substance selected from a member of the group consisting of L-arginine, L-arginine salts and L-arginine derivatives, to skin comprising the step of topically applying to the skin a vehicle containing an effective amount of the substance, and a concentration of ionic salt sufficient to create an ionic environment which causes the substance to migrate from the vehicle to the skin where the substance is absorbed.
4. The method of claim 1 wherein a vehicle containing the substance and the ionic salt within a liposome, and the is applied to the skin.
5. The method of claim 1 wherein a vehicle containing the substance and the ionic salt within a liposome and an ionic salt concentration sufficient to create an ionic strength environment within the liposome is applied to the skin so that the liposomes migrate from the vehicle to the skin.

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 31 through 60 of 63 returned.**☐ 31. Document ID: US 6103230 A

L7: Entry 31 of 63

File: USPT

Aug 15, 2000

US-PAT-NO: 6103230

DOCUMENT-IDENTIFIER: US 6103230 A

TITLE: Methods for promoting wound healing and treating transplant-associated vasculopathy

DATE-ISSUED: August 15, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Billiar; Timothy R.	Pittsburgh	PA		
Tzeng; Edith	Pittsburgh	PA		
Shears, II; Larry L.	Bethel Park	PA		
Geller; David A.	Pittsburgh	PA		
Edington; Howard David James	Pittsburgh	PA		

US-CL-CURRENT: [424/94.4](#); [424/94.1](#), [435/189](#), [435/252.3](#), [435/320.1](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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[KMIC](#)☐ 32. Document ID: US 6074873 A

L7: Entry 32 of 63

File: USPT

Jun 13, 2000

US-PAT-NO: 6074873

DOCUMENT-IDENTIFIER: US 6074873 A

TITLE: Nucleic acids encoding NL-3

DATE-ISSUED: June 13, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fong; Sherman	Alameda	CA		
Ferrara; Napoleone	San Francisco	CA		
Goddard; Audrey	San Francisco	CA		
Godowski; Paul J.	Burlingame	CA		
Gurney; Austin L.	Belmont	CA		
Hillan; Kenneth	San Francisco	CA		
Williams; P. Mickey	Half Moon Bay	CA		

US-CL-CURRENT: 435/325; 435/252.3, 435/254.11, 435/320.1, 435/69.1, 530/350,  
536/23.1, 536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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☐ 33. Document ID: US 6071962 A

L7: Entry 33 of 63

File: USPT

Jun 6, 2000

US-PAT-NO: 6071962

DOCUMENT-IDENTIFIER: US 6071962 A

TITLE: Oxa acids and related compounds for treating skin conditions

DATE-ISSUED: June 6, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri	Mahwah	NJ		
Scancarella; Neil D.	Wyckoff	NJ		
Kalafsky; Robert	Ogdensburg	NJ		

US-CL-CURRENT: 514/558; 514/513, 514/559, 514/560

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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☐ 34. Document ID: US 6071543 A

L7: Entry 34 of 63

File: USPT

Jun 6, 2000

US-PAT-NO: 6071543

DOCUMENT-IDENTIFIER: US 6071543 A

TITLE: Pyridine-thiols reverse mucocutaneous aging

DATE-ISSUED: June 6, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Thornfeldt; Carl R.	Nampa	ID		

US-CL-CURRENT: 424/642; 424/702, 514/301

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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☐ 35. Document ID: US 6069169 A

L7: Entry 35 of 63

File: USPT

May 30, 2000

US-PAT-NO: 6069169

DOCUMENT-IDENTIFIER: US 6069169 A

TITLE: OXA acids and related compounds for treating skin conditions

DATE-ISSUED: May 30, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri	Mahwah	NJ		
Scancarella; Neil	Wyckoff	NJ		
Kalafsky; Robert	Ogdensburg	NJ		

US-CL-CURRENT: 514/532; 424/70.1, 514/546, 514/549, 514/550, 514/558, 514/559,  
514/560, 514/568

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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☐ 36. Document ID: US 6057435 A

L7: Entry 36 of 63

File: USPT

May 2, 2000

US-PAT-NO: 6057435

DOCUMENT-IDENTIFIER: US 6057435 A

TITLE: Tie ligand homologues

DATE-ISSUED: May 2, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Godowski; Paul J.	Burlingame	CA		
Gurney; Austin L.	Belmont	CA		

US-CL-CURRENT: 536/23.5; 435/252.3, 435/254.1, 435/320.1, 435/325, 435/69.1, 530/350,  
536/23.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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☐ 37. Document ID: US 6045827 A

L7: Entry 37 of 63

File: USPT

Apr 4, 2000

US-PAT-NO: 6045827

DOCUMENT-IDENTIFIER: US 6045827 A

TITLE: Treatment of equine laminitis

DATE-ISSUED: April 4, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Russell; Meri Charmyne	Des Moines	IA	50312	

US-CL-CURRENT: 424/485; 424/422, 424/449, 424/450, 424/484, 424/718, 424/78.05,  
514/150, 514/151, 514/165, 514/166, 514/564, 514/567, 514/610, 514/611, 514/644,  
514/645, 514/740, 514/741, 514/742

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMCC
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☐ 38. Document ID: US 6043221 A

L7: Entry 38 of 63

File: USPT

Mar 28, 2000

US-PAT-NO: 6043221

DOCUMENT-IDENTIFIER: US 6043221 A

TITLE: Method for preventing and treating hearing loss using a neuturin protein product

DATE-ISSUED: March 28, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Magal; Ella	Thousand Oaks	CA		
Delaney; John M.	Newbury Park	CA		

US-CL-CURRENT: 514/12; 530/324, 530/350

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMCC
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☐ 39. Document ID: US 6030831 A

L7: Entry 39 of 63

File: USPT

Feb 29, 2000

US-PAT-NO: 6030831

DOCUMENT-IDENTIFIER: US 6030831 A

TITLE: Tie ligand homologues

DATE-ISSUED: February 29, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Godowski; Paul J.	Pacifica	CA		
Gurney; Austin L.	Belmont	CA		

US-CL-CURRENT: 435/320.1; 435/252.3, 435/254.11, 435/325, 435/69.1, 530/350,  
536/23.1, 536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMCC
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☐ 40. Document ID: US 6019976 A

L7: Entry 40 of 63

File: USPT

Feb 1, 2000

US-PAT-NO: 6019976

DOCUMENT-IDENTIFIER: US 6019976 A

TITLE: Formulations for treating male pattern baldness containing Serenoa repens, Vitamin B6, Vitamin B3, zinc and L-Arginine

DATE-ISSUED: February 1, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bryant; Andrew Edward	Bodmin, Cornwall	PL30	5PL	GB

US-CL-CURRENT: 424/727; 424/641, 424/642, 426/656, 514/880, 514/904, 514/905

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
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☐ 41. Document ID: US 6017888 A

L7: Entry 41 of 63

File: USPT

Jan 25, 2000

US-PAT-NO: 6017888

DOCUMENT-IDENTIFIER: US 6017888 A

TITLE: Stimulation of hair growth by peptide copper complexes

DATE-ISSUED: January 25, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Pallenberg; Alexander J.	Duval	WA		
Patt; Leonard M.	Seattle	WA		
Trachy; Ronald E.	Bothell	WA		

US-CL-CURRENT: 514/19; 514/499, 514/6, 548/104, 562/560

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 42. Document ID: US 6001809 A

L7: Entry 42 of 63

File: USPT

Dec 14, 1999

US-PAT-NO: 6001809

DOCUMENT-IDENTIFIER: US 6001809 A

TITLE: Inhibitors of leukocyte adhesion

DATE-ISSUED: December 14, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Thorsett; Eugene D.	Moss Beach	CA		
Yednock; Theodore A.	Fairfax	CA		
Pleiss; Michael A.	Fremont	CA		

US-CL-CURRENT: 514/15; 514/16, 514/17, 514/18, 514/903, 530/327, 530/328, 530/329, 530/330

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KUMC
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☐ 43. Document ID: US 6001377 A

L7: Entry 43 of 63

File: USPT

Dec 14, 1999

US-PAT-NO: 6001377

DOCUMENT-IDENTIFIER: US 6001377 A

TITLE: Skin care compositions and method of improving skin appearance

DATE-ISSUED: December 14, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
SaNogueira, Jr.; James Pedrosa	Wyoming	OH		
Dawes; Nancy Coultrip	Cincinnati	OH		

US-CL-CURRENT: 424/401; 424/489, 514/937, 514/938

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KUMC
Draw Desc	Image									

☐ 44. Document ID: US 5997890 A

L7: Entry 44 of 63

File: USPT

Dec 7, 1999

US-PAT-NO: 5997890

DOCUMENT-IDENTIFIER: US 5997890 A

TITLE: Skin care compositions and method of improving skin appearance

DATE-ISSUED: December 7, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sine; Mark Richard	Morrow	OH		
SaNogueira, Jr.; James Pedrosa	Wyoming	OH		
Dawes; Nancy Coultrip	Cincinnati	OH		

US-CL-CURRENT: 424/401; 514/937, 514/938, 514/947

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 45. Document ID: US 5997887 A

L7: Entry 45 of 63

File: USPT

Dec 7, 1999

US-PAT-NO: 5997887

DOCUMENT-IDENTIFIER: US 5997887 A

TITLE: Skin care compositions and method of improving skin appearance

DATE-ISSUED: December 7, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ha; Robert Bao Kim	Milford	OH		
Fowler; Timothy John	Cincinnati	OH		

US-CL-CURRENT: 424/401; 424/69, 424/70.1, 514/844, 514/845, 514/846, 514/847,  
514/937, 514/938, 514/944

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
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☐ 46. Document ID: US 5972359 A

L7: Entry 46 of 63

File: USPT

Oct 26, 1999

US-PAT-NO: 5972359

DOCUMENT-IDENTIFIER: US 5972359 A

TITLE: Skin care compositions and method of improving skin appearance

DATE-ISSUED: October 26, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sine; Mark Richard	Cincinnati	OH		
SaNoqueira, Jr.; James Pedrosa	Cincinnati	OH		
Dawes; Nancy Coultrip	Cincinnati	OH		

US-CL-CURRENT: 424/401; 106/428, 106/436, 424/400, 424/59, 424/60, 424/63, 514/847,  
514/938

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
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☐ 47. Document ID: US 5972338 A

L7: Entry 47 of 63

File: USPT

Oct 26, 1999

US-PAT-NO: 5972338  
DOCUMENT-IDENTIFIER: US 5972338 A

TITLE: Tie ligands homologues

DATE-ISSUED: October 26, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Godowski; Paul J.	Pacifica	CA		
Gurney; Austin L.	Belmont	CA		

US-CL-CURRENT: 424/185.1; 424/192.1, 530/350, 530/402

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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☐ 48. Document ID: US 5968528 A

L7: Entry 48 of 63

File: USPT

Oct 19, 1999

US-PAT-NO: 5968528  
DOCUMENT-IDENTIFIER: US 5968528 A

TITLE: Skin care compositions

DATE-ISSUED: October 19, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Deckner; George Endel	Cincinnati	OH		
SaNogueira, Jr.; James Pedrosa	Wyoming	OH		
Zukowski; Joseph Michael	Cincinnati	OH		

US-CL-CURRENT: 424/401; 424/59, 514/557, 514/574, 514/844, 514/847, 514/937

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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☐ 49. Document ID: US 5939082 A

L7: Entry 49 of 63

File: USPT

Aug 17, 1999

US-PAT-NO: 5939082  
DOCUMENT-IDENTIFIER: US 5939082 A

TITLE: Methods of regulating skin appearance with vitamin B.sub.3 compound

DATE-ISSUED: August 17, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Oblong; John Erich	Cincinnati	OH		
Bissett; Donald Lynn	Hamilton	OH		
Biedermann; Kimberly Ann	Cincinnati	OH		

US-CL-CURRENT: [424/401](#); [514/844](#), [514/845](#), [514/846](#), [514/938](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWC
Draw Desc	Image									

☐ 50. Document ID: US 5932229 A

L7: Entry 50 of 63

File: USPT

Aug 3, 1999

US-PAT-NO: 5932229

DOCUMENT-IDENTIFIER: US 5932229 A

TITLE: Oxa diacids and related compounds for treating skin conditions

DATE-ISSUED: August 3, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri	Mahwah	NJ		
Scancarella; Neil	Wyckoff	NJ		
Kalafsky; Robert	Ogdensburg	NJ		

US-CL-CURRENT: [424/401](#); [424/443](#), [424/61](#), [424/701](#), [424/73](#), [424/DIG.5](#), [514/532](#), [514/533](#), [514/546](#), [514/547](#), [514/550](#), [514/551](#), [514/552](#), [514/557](#), [514/561](#), [514/562](#), [514/563](#), [514/564](#), [514/566](#), [514/568](#), [514/572](#), [514/574](#), [514/578](#), [514/625](#), [514/626](#), [514/844](#), [514/846](#), [514/859](#), [514/861](#), [514/863](#), [514/880](#), [514/881](#), [514/937](#), [514/938](#), [514/944](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWC
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☐ 51. Document ID: US 5922332 A

L7: Entry 51 of 63

File: USPT

Jul 13, 1999

US-PAT-NO: 5922332

DOCUMENT-IDENTIFIER: US 5922332 A

TITLE: Topical delivery of arginine to overcome pain

DATE-ISSUED: July 13, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fossel; Eric T.	S. Hero	VT	05486	

US-CL-CURRENT: [424/401](#); [424/450](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

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☐ 52. Document ID: US 5895658 A

L7: Entry 52 of 63

File: USPT

Apr 20, 1999

US-PAT-NO: 5895658

DOCUMENT-IDENTIFIER: US 5895658 A

TITLE: Topical delivery of L-arginine to cause tissue warming

DATE-ISSUED: April 20, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fossel; Eric T.	S. Hero	VT	05486	

US-CL-CURRENT: 424/401; 424/450

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KMC

☐ 53. Document ID: US 5891472 A

L7: Entry 53 of 63

File: USPT

Apr 6, 1999

US-PAT-NO: 5891472

DOCUMENT-IDENTIFIER: US 5891472 A

TITLE: Treatment of equine laminitis

DATE-ISSUED: April 6, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Russell; Meri Charmyne	Des Moines	IA	50312	

US-CL-CURRENT: 424/484; 424/485, 514/509, 514/645, 514/946, 514/947

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

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☐ 54. Document ID: US 5847003 A

L7: Entry 54 of 63

File: USPT

Dec 8, 1998

US-PAT-NO: 5847003

DOCUMENT-IDENTIFIER: US 5847003 A

TITLE: Oxa acids and related compounds for treating skin conditions

DATE-ISSUED: December 8, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri	Mahwah	NJ		
Scancarella; Neil	Wyckoff	NJ		
Kalafsky; Robert	Ogdensburg	NJ		

US-CL-CURRENT: [514/532](#); [514/546](#), [514/549](#), [514/558](#), [514/559](#), [514/560](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw. Desc	Image									

☐ 55. Document ID: US 5834513 A

L7: Entry 55 of 63

File: USPT

Nov 10, 1998

US-PAT-NO: 5834513

DOCUMENT-IDENTIFIER: US 5834513 A

TITLE: Oxa diazids and related compounds for treating skin conditions

DATE-ISSUED: November 10, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ptchelintsev; Dmitri	Mahwah	NJ		
Scancarella; Neil	Wyckoff	NJ		
Kalafsky; Robert	Ogdensburg	NJ		

US-CL-CURRENT: [514/561](#); [514/564](#), [514/566](#), [514/574](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw. Desc	Image									

☐ 56. Document ID: US 5830461 A

L7: Entry 56 of 63

File: USPT

Nov 3, 1998

US-PAT-NO: 5830461

DOCUMENT-IDENTIFIER: US 5830461 A

TITLE: Methods for promoting wound healing and treating transplant-associated vasculopathy

DATE-ISSUED: November 3, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Billiar; Timothy R.	Pittsburgh	PA		
Tzeng; Edith	Pittsburgh	PA		
Shears, II; Larry L.	Bethel Park	PA		
Geller; David A.	Pittsburgh	PA		
Edington; Howard David James	Pittsburgh	PA		

US-CL-CURRENT: 424/94.4; 424/94.1, 435/189

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

K/MC

☐ 57. Document ID: US 5804203 A

L7: Entry 57 of 63

File: USPT

Sep 8, 1998

US-PAT-NO: 5804203

DOCUMENT-IDENTIFIER: US 5804203 A

TITLE: Topical product formulations containing strontium for reducing skin irritation

DATE-ISSUED: September 8, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hahn; Gary S.	Cardiff by the Sea	CA		
Thueson; David O.	Poway	CA		
Quick; Timothy W.	San Diego	CA		

US-CL-CURRENT: 424/401; 424/617, 424/757, 424/769, 514/847, 514/859, 514/887

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

K/MC

☐ 58. Document ID: US 5538945 A

L7: Entry 58 of 63

File: USPT

Jul 23, 1996

US-PAT-NO: 5538945

DOCUMENT-IDENTIFIER: US 5538945 A

TITLE: Stimulation of hair growth by peptide copper complexes

DATE-ISSUED: July 23, 1996

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Pallenberg; Alexander J.	Duval	WA		
Patt; Leonard M.	Seattle	WA		
Trachy; Ronald E.	Bothell	WA		

US-CL-CURRENT: 514/6; 514/18, 514/19, 530/304

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

K/MC

☐ 59. Document ID: US 5519020 A



L7: Entry 59 of 63

File: USPT

May 21, 1996

US-PAT-NO: 5519020

DOCUMENT-IDENTIFIER: US 5519020 A

TITLE: Polymeric wound healing accelerators

DATE-ISSUED: May 21, 1996

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Smith; Daniel J.	Stow	OH		
Pulfer; Sharon	Clinton	OH		
Shabani; Mohammad	Akron	OH		

US-CL-CURRENT: [424/718](#); [424/444](#), [424/488](#), [424/499](#), [424/500](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMCM
Draw Desc	Image									

☐ 60. Document ID: US 5364884 A

L7: Entry 60 of 63

File: USPT

Nov 15, 1994

US-PAT-NO: 5364884

DOCUMENT-IDENTIFIER: US 5364884 A

TITLE: Arginine compounds as ocular hypotensive agents

DATE-ISSUED: November 15, 1994

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Varma; Rajender S.	The Woodlands	TX		
Chiou; George C. Y.	College Station	TX		

US-CL-CURRENT: [514/551](#); [514/565](#), [514/616](#), [514/621](#), [514/913](#), [560/34](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMCM
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L6 and liposome\$

**Documents**

63

**Display Format:**

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**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 1 of 1 returned.**☐ 1. Document ID: US 6242010 B1

L3: Entry 1 of 1

File: USPT

Jun 5, 2001

US-PAT-NO: 6242010

DOCUMENT-IDENTIFIER: US 6242010 B1

TITLE: Synergistic antioxidant compositions in management of hemorrhoids and other ano-rectal inflammatory conditions

DATE-ISSUED: June 5, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hersh, Theodore	Atlanta	GA		

US-CL-CURRENT: 424/702; 424/400, 424/729, 424/94.1, 424/DIG.15, 514/562, 514/882, 514/937, 514/944, 514/966, 514/969

Full	Title	GIT.1	REV.1	CLS.1	REF.1	SEQ.1	ATT.1
RAW.1							

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Terms	Documents
L2 and liposome\$	1

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**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 4 of 4 returned.**☐ 1. Document ID: US 6395736 B1

L2: Entry 1 of 4

File: USPT

May 28, 2002

US-PAT-NO: 6395736

DOCUMENT-IDENTIFIER: US 6395736 B1

TITLE: Compositions and methods for the treatment of anorectal disorders

DATE-ISSUED: May 28, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Parks; Thomas P.	San Mateo	CA		
Mak; Vivien	Palo Alto	CA		
Lee; Jung-Chung	Sunnyvale	CA		
Lee; Charles	Union City	CA		

US-CL-CURRENT: [514/248](#); [514/273](#), [514/309](#), [514/353](#), [514/422](#)

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">Claims</a>	<a href="#">KMC</a>
<a href="#">Draw Desc</a>	<a href="#">Image</a>										

☐ 2. Document ID: US 6391869 B1

L2: Entry 2 of 4

File: USPT

May 21, 2002

US-PAT-NO: 6391869

DOCUMENT-IDENTIFIER: US 6391869 B1

TITLE: Compositions and methods for the treatment of anorectal disorders

DATE-ISSUED: May 21, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Parks; Thomas P.	San Mateo	CA		
Mak; Vivien	Palo Alto	CA		
Lee; Jung-Chung	Sunnyvale	CA		
Lee; Charles	Union City	CA		

US-CL-CURRENT: [514/211.07](#); [514/252.19](#), [514/254.07](#), [514/424](#), [514/641](#)

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">Claims</a>	<a href="#">KMC</a>
<a href="#">Draw Desc</a>	<a href="#">Image</a>										

☐ 3. Document ID: US 6242010 B1

L2: Entry 3 of 4

File: USPT

Jun 5, 2001

US-PAT-NO: 6242010

DOCUMENT-IDENTIFIER: US 6242010 B1

TITLE: Synergistic antioxidant compositions in management of hemorrhoids and other ano-rectal inflammatory conditions

DATE-ISSUED: June 5, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hersh; Theodore	Atlanta	GA		

US-CL-CURRENT: 424/702; 424/400, 424/729, 424/94.1, 424/DIG.15, 514/562, 514/882, 514/937, 514/944, 514/966, 514/969

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 4. Document ID: US 6117877 A

L2: Entry 4 of 4

File: USPT

Sep 12, 2000

US-PAT-NO: 6117877

DOCUMENT-IDENTIFIER: US 6117877 A

TITLE: Method for treating painful conditions of the anal region and compositions therefor

DATE-ISSUED: September 12, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fogel; Barry S.	Waban	MA		

US-CL-CURRENT: 514/266.21; 514/23, 514/252.17, 514/331, 514/400, 514/537, 514/626, 514/627, 514/651

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
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Terms	Documents
L1 and arginine	4

**Display Format:**

[Previous Page](#)

[Next Page](#)

**WEST****End of Result Set**☐ **Generate Collection** **Print**

L2: Entry 4 of 4

File: USPT

Sep 12, 2000

DOCUMENT-IDENTIFIER: US 6117877 A

TITLE: Method for treating painful conditions of the anal region and compositions therefor

Abstract Text (1):

Method and composition for treating painful conditions of the anorectal region. The compositions include a combination of an .alpha.-adrenergic blocker and sucralfate, a combination of .alpha.-adrenergic blocker and lidocaine, and a combination of an .alpha.-adrenergic blocker, lidocaine, and sucralfate. Alternatively, the composition may contain only an .alpha.-adrenergic blocker. Additional active ingredients for reduction of anal pain may be added to the composition, particularly capsaicin. The compositions may be included in a petrolatum base along with a water soluble lubricant. These compositions have been found effective in treating painful conditions in the anal region, such as anal fissures, inflamed or recently thrombosed hemorrhoids, and chronic anal pain.

Brief Summary Text (9):

Several additional approaches are known for relaxation of the IAS. In U.S. Pat. No. 5,595,753, Hechtman sets forth the use of L-arginine as an active ingredient in topical formulations and methods for treating hemorrhoidal pain and sphincter spasm in the gastrointestinal tract. L-arginine acts to increase nitric oxide production. Application of L-arginine in a topical carrier directly to the affected area relaxes sphincter tension and relieves hemorrhoidal pain in approximately 10 minutes. A separate approach, described by Parischa and Kallo in U.S. Pat. No. 5,437,291, makes use of direct injections of botulinum toxin into the affected area for treatment of gastrointestinal muscle disorders and other smooth muscle dysfunction. They report that the benefits of botulinum toxin injection appear to be sustained for several months.

Brief Summary Text (11):

Lidocaine, a topical anesthetic, has been used as a treatment for another painful rectal condition, ulcerative proctitis (Bjorck et al., Scandinavian Journal of Gastroenterology, 1989 24:1061-1072). It has also been recommended to relieve pain sufficiently to permit rectal examination of patients with fissures. However, it is not uncommon for pain relief to be insufficient, so that the physician must resort to anesthesia or intravenous sedation, or wait for improvement with conservative treatment (Janicke & Pundt, 1996, supra.)

Brief Summary Text (14):

In co-pending, commonly-owned U.S. patent application Ser. No. 09/031,858, incorporated by reference herein, I show that sucralfate, together with nitroglycerin, lidocaine, or both, is efficacious for the treatment of anal fissures, and inferred its utility for other painful conditions of the anal region. I suggested that the three ingredients would show synergy in the treatment of these disorders, and presented several cases in which they were particularly effective in relieving pain and promoting healing. Experiments with patients with anal fissures further demonstrated that all three ingredients together produced a better analgesic effect than any two ingredients together. Topical nitroglycerin has become a standard treatment option for anal fissures by rectal surgeons. However, use of nitroglycerin is limited by the frequent occurrence of headache, which often requires discontinuation of the drug. Moreover, it is not always effective in relieving the

pain of anal fissures.

Brief Summary Text (18):

One aspect of the invention is a composition comprising an .alpha.-adrenergic blocker alone at an effective and tolerable dose. Another aspect of the present invention is a composition comprising the combination of an .alpha.-adrenergic blocker together with sucralfate. Yet another aspect is a composition comprising a combination of an .alpha.-adrenergic blocker together with a local anesthetic (preferably lidocaine). In addition, the inventive composition may combine .alpha.-adrenergic blocker, together with sucralfate and a local anesthetic to achieve a synergistic effect. These compositions have analgesic properties and are useful for treatment of anal fissures and other painful conditions of the anal region.

Detailed Description Text (7):

The cream was administered to a patient with an anal fissure and severe acute pain (see Case Report 3). Within 5 minutes, she had substantial relief-->50%. She compared the cream with a combination cream containing nitroglycerin, lidocaine and sucralfate; results were similar. The patient had a headache after applying the cream with nitroglycerin, but did not experience any adverse side effects from the cream containing doxazosin. She therefore chose to continue using the doxazosin cream. This demonstrated the analgesic effect of an .alpha.1-adrenergic antagonist for the pain of anal fissure. One can infer that a nonspecific .alpha.-adrenergic antagonist would also be effective, since its .alpha.-2 antagonist effects would not be expected to interfere with the relaxation of anal sphincter spasm from its .alpha.-1 antagonist effects. (This case also demonstrates that in some individuals, an effective dose of an .alpha.1-adrenergic antagonist can have less toxicity than an effective dose of nitroglycerin.)

Detailed Description Text (8):

As noted above, in co-pending patent application Ser. No. 09/031,858, I reported that a cream containing nitroglycerin, lidocaine, and sucralfate was efficacious for the treatment of the pain of anal fissures, and that

Detailed Description Text (10):

Three factors contribute to the synergistic efficacy of the combination: 1) the local anesthetic effect of lidocaine is based on a different mechanism of action than the analgesic effect of nitroglycerin; 2) sucralfate serves to keep the other two ingredients adherent to the fissure, prolonging their action; 3) sucralfate has antiinflammatory effects in its own right. Given the efficacy of an .alpha.1-adrenergic blocker alone for anal pain, I inferred that the combination of an .alpha.1-adrenergic blocker with lidocaine and sucralfate, or with lidocaine or sucralfate alone, would provide relief from anal pain. Such combination would circumvent the use of nitroglycerin, which, as noted above, causes adverse side effects, especially headaches, in some patients. In addition, the combined use of an .alpha.-adrenergic blocker with lidocaine and sucralfate provides therapeutic efficacy at a lower than toxic dose of the .alpha.-adrenergic blocker due to the synergistic activity of the three compounds in treating anal pain. (In general, .alpha.-adrenergic blockers are particularly promising in combination preparations, because their already low toxicity is even less at the lower doses required in combinations with synergistic or even additive efficacy.)

Detailed Description Text (19):

In other preferred embodiments, a topical formula for treatment of anal fissures and other painful anal conditions involving spasm of the IAS containing .alpha.-adrenergic antagonists is supplemented with ingredients that together with the .alpha.-adrenergic antagonist have synergistic effects in treating anal pain. For example, an .alpha.-adrenergic antagonist can be combined with at least one, preferably any two of a steroidal antiinflammatory (e.g., a corticosteroid), a non-steroidal antiinflammatory drug (including specifically diclofenac opiates), a local anesthetic, sucralfate or a similar disaccharide, capsaicin (with a local anesthetic, i.e., lidocaine) or capsaicin (in a tolerable dosage or preparation). Such combinations would provide improved relief over treatment with the .alpha.-antagonist alone.

Detailed Description Text (23):

The .alpha.-adrenergic blocker could also be added to marketed over-the-counter compositions that do not have an active compound, including petrolatum (Vaseline), K-Y Jelly, lanolin, mineral oil, cocoa butter, calamine, glycerin, kaolin, and cod liver oil. .alpha.-adrenergic blockers could replace any active agent with a principal action of relieving IAS spasm or reducing IAS pressure, including without limitation nitroglycerin, other nitrates (e.g. isosorbide dinitrate), other nitric oxide donors, and L-arginine. Any composition containing any one of these ingredients could be reformulated to contain an .alpha.-adrenergic blocker, (i.e., an .alpha.1-adrenergic antagonist or a non-specific .alpha.-adrenergic antagonists with sufficient .alpha.1-adrenergic antagonist effects.). Alternatively, capsaicin, with or without a local anesthetic such as lidocaine, can be used to replace the active agents or ingredients in the above-mentioned marketed over-the-counter compositions.

Detailed Description Text (42):

Case Series 2: 4 subsequent patients, all but one with anoscopically confirmed anal fissures, were treated with the combination of nitroglycerin, lidocaine, and sucralfate, with the expectation of even better relief. (Patient #4 suffered from chronic anal pain of unknown cause.) All 4 of those treated obtained relief, and all chose to continue the medication for several days. Patients were instructed to use the cream as often as they needed for pain relief they found satisfactory. The following table summarizes these patients' reports of their experience with the analgesic cream:

Detailed Description Text (45):

An additional experiment was performed to establish the effect of the sucralfate. A 64 year old man with severe pain following the rubber band ligation of a hemorrhoid was treated. He had six weeks of pain prior to the treatment. We treated him on alternate days with either the composition including nitroglycerin, lidocaine and sucralfate or the composition without the sucralfate. He was instructed to reapply the formula any time the pain began to recur. The three ingredient formula gave 90% relief (i.e., pain reduced to 10% of baseline) within fifteen minutes. The patient applied the cream three more times during the next twenty-four hours obtaining satisfactory relief.

Detailed Description Text (47):

An additional three patients (Patients 5, 6, and 7) were treated with various formulations to establish the benefit of sucralfate and to illustrate that the concentration of nitroglycerin needed to treat anal fissure can be lower than that reported in the literature. These cases also show that adding nitroglycerin to the sucralfate-lidocaine combination improves efficacy. The three additional cases are shown in the table below:

Detailed Description Text (51):

Conclusions: A topical analgesic cream or ointment for anal fissures that contains nitroglycerin will be more efficacious if it also contains sucralfate. A cream or ointment containing nitroglycerin, sucralfate, and lidocaine is especially efficacious.

Detailed Description Text (53):

Case Report 3: A topical cream containing doxazosin, an .alpha.-adrenergic blocker, at a concentration of 0.2 mg/ml in a lubricant base made of petrolatum and K-Y.TM. Jelly was administered to a female patient with an anal fissure and severe acute pain of the anal region. Within 5 minutes, the patient has substantial relief (>50%). The patient compared the .alpha.-adrenergic cream with a cream containing nitroglycerin, lidocaine and sucralfate and reported that relief was similar. The patient chose to continue using the doxazosin cream.

Detailed Description Text (64):

Conclusions: Case Reports 4 and 5 establish that a combination of lidocaine, sucralfate and an .alpha.1-adrenergic antagonist is efficacious and tolerable treatment for anal fissures. Together with Case Report 3, showing that an .alpha.1-adrenergic antagonist alone is efficacious, it can be inferred that the combination of an .alpha.1-adrenergic antagonist with either sucralfate or lidocaine (rather than both) will be efficacious.



**WEST****End of Result Set**

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L6: Entry 3 of 3

File: DWPI

Dec 21, 1989

DERWENT-ACC-NO: 1990-116262

DERWENT-WEEK: 199016

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TITLE: Haemorrhoidal bleeding prevention treatment - by administering with an effective amt. of non-steroidal antiinflammatory cpds. in a pharmaceutically acceptable form

Basic Abstract Text (2):

USE/ADVANTAGE - The method is both curative and preventative and particularly useful in the treatment of cases where the haemorrhoid is still inside the anus and rectum. The active ingredient is present in an amt. of 5-75 wt%. The NSAIDS are in a combination with a pharmaceutically acceptable carrier or excipient and the compsn. is in a form suitable for oral parenteral and/or rectal administration. The NSAID is chosen from aspirin, salicylates, acetaminophen, phenacetin, diflusal, naproxen, ibuprofen, sulindac, mefenamic acid, phenyl butazone or indomethacin.

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L6: Entry 2 of 3

File: DWPI

Oct 3, 1996

DERWENT-ACC-NO: 1996-454974

DERWENT-WEEK: 199737

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TITLE: New transdermal compsns. e.g. for treating inflammation or pain - comprise solvent e.g. isopropyl ester, polar lipid e.g. lecithin, urea and surfactant e.g. docusate sodium.

Basic Abstract Text (2):

USE - Compsn. (A) is used for the transdermal delivery of analgesics, antiinflammatories, biologically active proteins or antineoplastic cpds. (pref. ibuprofen or ketoprofen). Compsn. (B) is useful for the delivery of nifedipine, ketoprofen or ibuprofen NSAIDS. The localised medical condition is arthritis, bunions, haemorrhoids, subcutaneous or cutaneous cancer, hair loss, cutaneous or subcutaneous bacterial infection or fungal infection and the PAS is pref. a NSAID, a steroidal antiinflammatory drug, an antineoplastic agent, hormone, biologically active protein, substance P antagonist, an antifungal, an anaesthetic, an antianginal, muscle relaxant, minoxidil or a testosterone 5-alpha reductase inhibitor.

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 3 of 3 returned.**☐ 1. Document ID: WO 200264564 A1

L6: Entry 1 of 3

File: DWPI

Aug 22, 2002

DERWENT-ACC-NO: 2002-691586

DERWENT-WEEK: 200274

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TITLE: New naphthalene derivatives useful for treating conditions mediated by the action of prostaglandin at EP4 receptor e.g. rheumatoid arthritis, osteoarthritis and pain

INVENTOR: CONGREVE, M S; GIBLIN, G M P ; MASON, A M ; MILLER, N D ; ROOMANS, S ; WALKER, A L

PRIORITY-DATA: 2001GB-0003269 (February 9, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200264564 A1	August 22, 2002	E	067	C07D209/64

INT-CL (IPC): A61 K 31/4035; A61 P 19/02; A61 P 25/06; A61 P 29/02; C07 D 209/64; C07 D 209/66

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>
<a href="#">Draw Desc</a>	<a href="#">Image</a>								

[KMC](#)☐ 2. Document ID: WO 9629988 A1 US 5654337 A AU 9652559 A

L6: Entry 2 of 3

File: DWPI

Oct 3, 1996

DERWENT-ACC-NO: 1996-454974

DERWENT-WEEK: 199737

COPYRIGHT 2003 DERWENT INFORMATION LTD

TITLE: New transdermal compsns. e.g. for treating inflammation or pain - comprise solvent e.g. isopropyl ester, polar lipid e.g. lecithin, urea and surfactant e.g. docusate sodium.

INVENTOR: ROENTSCH, G E; SNYDER, W S ; ROENTSCH, E G

PRIORITY-DATA: 1995US-0410459 (March 24, 1995)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9629988 A1	October 3, 1996	E	020	A61K009/06
US 5654337 A	August 5, 1997		007	A01N037/10
AU 9652559 A	October 16, 1996		000	A61K009/06

INT-CL (IPC): A01 N 37/10; A61 K 9/06; A61 K 31/19; A61 K 47/00

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KMC

☐ 3. Document ID: AU 8817780 A

L6: Entry 3 of 3

File: DWPI

Dec 21, 1989

DERWENT-ACC-NO: 1990-116262

DERWENT-WEEK: 199016

COPYRIGHT 2003 DERWENT INFORMATION LTD

TITLE: Haemorrhoidal bleeding prevention treatment - by administering with an effective amt. of non-steroidal antiinflammatory cpds. in a pharmaceutically acceptable form

INVENTOR: ALIKHAN, M

PRIORITY-DATA: 1987AU-0000870 (March 17, 1987), 1987AU-0017780 (March 17, 1987),  
1988AU-0017780 (January 1, 1988)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 8817780 A	December 21, 1989		000	

INT-CL (IPC): A61K 31/19

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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Generate Collection

Print

Terms	Documents
NSAIDS same (fissures or hemorrhoids)	3

Display Format:

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[Previous Page](#)[Next Page](#)

## WEST Search History

DATE: Tuesday, January 14, 2003

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
L6	NSAIDS same (fissures or hemorrhoids)	3	L6
L5	(L1 or L4) and (NSAID\$)	3	L5
L4	lidocaine same liposome\$	58	L4
L3	L2 and liposome\$	1	L3
L2	L1 and arginine	4	L2
L1	lidocaine same (fissures or hemorrhoids)	24	L1

END OF SEARCH HISTORY

Day : Tuesday  
Date: 1/14/2003  
Time: 10:38:48

# **PALM INTRANET**

## Application Number Information

Application Number: 10/042818

Examiner Number: 68276 / KISHORE, GOLLAMUDIAssignments

Filing Date: 01/09/2002

Group Art Unit: 1615

Effective Date: 01/09/2002

Class/Subclass: 424/450.000

Application Received: 01/11/2002

Lost Case: NO

Patent Number:

Interference Number:

Issue Date: 00/00/0000

Unmatched Petition: NO

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Attorney Docket Number: FLI-10502/03

Third Level Review: NO

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Confirmation Number: 7313

Title of Invention: COMPOSITION AND METHOD FOR THE TREATMENT OF ANORECTAL DISORDERS

Bar Code	Location	Location Date	Chrg to Loc	Charge to Name	Emp. ID	Infra Loc
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